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## (54) FRICTION MATERIAL FOR SYNCHRONIZER RING

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide excellent friction performance in sliding and enhance the heat resistance and a strength characteristic by adhesively bonding a carbon fiber composite hardenable resin sheet consisting of a sheet obtained by heating and hardening a thermosetting resin to a carbon fiber cloth and having a limited porosity in a specified pore diameter to a metallic annular support.

SOLUTION: A carbon fiber composite hardenable resin sheet is obtained by impregnating a carbon fiber cloth with a thermosetting resin and heating and hardening the impregnated thermosetting resin. As the porous property of the resulting carbon fiber composite hardenable resin sheet, the porosity that is the ratio of the pore capacity in a pore diameter of 0.1-300  $\mu\text{m}$  to the total pore capacity is set within the range of 0.5-10%. The carbon fiber composite hardenable resin sheet is worked into a prescribed form, and adhesively bonded to a metallic annular support such as steel, iron alloy, copper alloy, aluminum alloy or the like to provide a friction material for synchronizer ring. By specifying the porous property in this way, a large friction coefficient, excellent wear resistance and high strength characteristic can be provided.

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